

PATENT ABSTRACTS OF JAPAN

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(21)Application number : **2001-099407** (71) **KYOCERA CORP**
Applicant :

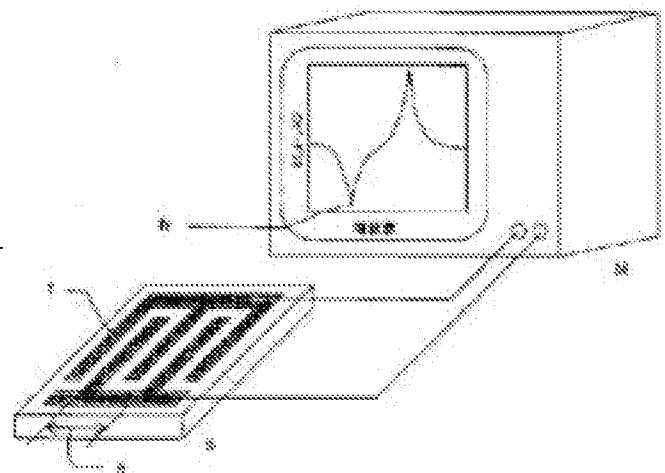
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(54) SUBSTRATE FOR SURFACE ACOUSTIC WAVE DEVICE, THE SURFACE ACOUSTIC WAVE DEVICE EMPLOYING IT, AND ITS MANUFACTURING METHOD

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a substrate for a surface acoustic wave device made of a lithium tantalate single crystal with excellent uniformity and to provide the surface acoustic wave device employing it and its manufacturing method.

SOLUTION: This invention provides the substrate for a surface acoustic wave device that is made of a lithium tantalate single crystal the abnormal optical refractive index of which is 2.1767-2.1795 and the double refraction value of which is 0.0004-0.0032, which are respectively measured by using a He-Ne laser at a temperature of 20-30°C.



JAPANESE

[JP,2002-300001,A]

CLAIMS DETAILED DESCRIPTION TECHNICAL FIELD PRIOR ART EFFECT OF THE INVENTION
TECHNICAL PROBLEM MEANS EXAMPLE
DESCRIPTION OF DRAWINGS DRAWINGS

[Translation done.]

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1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

CLAIMS

[Claim(s)]

[Claim 1] A substrate for surface acoustic wave apparatus which was measured at temperature of 20-30 ** using helium-Ne laser and with which 2.1767-2.1795, or a double reflex value comprises a lithium tantalate single crystal of 0.0004-0.0032 in an extraordinary index.

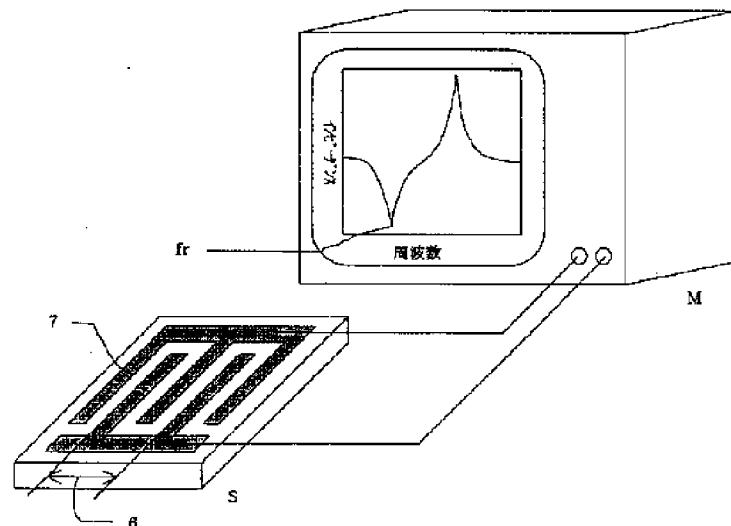
[Claim 2] The substrate for surface acoustic wave apparatus according to claim 1, wherein change of said extraordinary index or said double reflex value is **0.0003.

[Claim 3] The substrate for surface acoustic wave apparatus according to claim 1 to 2, wherein principal surfaces of a substrate are 33 degrees - a 46-degree rotation Y cut face.

[Claim 4] A surface acoustic wave apparatus forming an excitation electrode of a surface acoustic wave on the substrate for surface acoustic wave apparatus according to claim 1 to 3.

[Claim 5] In temperature of 20-30 ** to a substrate which comprises a lithium tantalate single crystal, A process of measuring an extraordinary index or a double reflex value using helium-Ne laser, A manufacturing method of a surface acoustic wave apparatus with which said extraordinary

Drawing selection Representative draw



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